COMPUTER KEYBOARD LIGHT SYSTEM

BACKGROUND OF THE INVENTION

This invention relates to the field of light systems and, more particularly, to the field of lights for personal computer keyboards and other control means.

During recent years, the use of personal computers (PC's) has become prevalent. Personal computers have achieved widespread use both in the home as well as in the office environment—so much so, that even the most cramped of college dormitory rooms is rarely without at least one PC. PC's are also being increasingly found in bedrooms of high school students across the United States. In addition, many small business owners use PC's as a way of converting a part of their living space into a makeshift "home office."

A common problem associated with most non-office users of PC's is the lack of proper lighting for illuminating the PC. Until now, no single light could be used for illuminating the entire PC operation system, including the associated microprocessor, monitor, adjustment knobs, keyboard, writing area, copyholder, etc. For example, a swing arm lamp must have several adjustable lamp heads with different power outputs for illuminating each location. Thus, no traditional desk lamp can fulfill this special purpose.

Another problem in many situations of PC home use is a severe shortage of space, a result of which is the fact that PC users are often faced with cramped workstations. The presence of a large PC, including its associated microprocessor, monitor and computer keyboard, leaves precious little space for other necessary workstation devices, such as a desk lamp. Any traditional desk lamp is too large in size and power to be inserted into a cramped PC workstation. Thus, unfortunately this often leads to the absence of a proper computer and keyboard light needed to enable a PC user to see the PC components properly, thereby exacerbating the common problem of poor lighting discussed earlier. It is desirable to provide a light source that is dedicated to computer keyboard illumination and that will not impose on the space surrounding the PC workstation.

It is, therefore, an object of this invention to provide a light system for illumination of the keyboard and other control means of a home-used personal computer.

It is another object of this invention to provide a PC keyboard light system that will not impose on the space surrounding the PC workstation and will be safe enough in a limited flammable environment.

It is a further object of this invention to provide a PC keyboard light system that may also illuminate a portable PC, a copy holder, a printer and a writing area and that may be powered by 12/24 volt AC, by 12/24 volt DC or by rechargeable batteries.

SUMMARY OF THE INVENTION

In accordance with these and other objects of the invention, a personal computer keyboard light system comprises, in a first embodiment, at least one small upright lamp unit mounted to a flat base that is secured to the underside of the computer keyboard or PC monitor. The lamp arms are telescopeable, and both the lamp arms and the lamp heads are rotatable by rachet connections to allow for adjustment of the lights. The arms could also be formed of an internal structure that allows them to be twisted or adjusted into different shapes and positions.

In another embodiment, the computer keyboard light system further comprises a small lamp unit mounted to a small planar base that is adhered to the side of the PC monitor in order to illuminate either the keyboard, the monitor adjustment knobs, the control means of the printer, the mouse, a writing area or a copy holder. In this embodiment, the lamp head and arms are adjustable as discussed.

BRIEF DESCRIPTION OF THE DRAWINGS

The above and other objects and advantages of the invention will be apparent upon consideration of the following detailed description, taken in conjunction with the accompanying drawings, in which the reference characters refer to like parts throughout and in which:

FIG. **1** is a perspective view of a preferred embodiment of this invention in use on a personal computer;

FIG. **2** is a perspective view of a first embodiment of this invention;

FIG. **3** is a perspective view of an alternative embodiment of this invention;

FIG. **4** shows use of the first embodiment of this invention with a portable computer;

FIG. **5** is a typical circuit diagram of this invention; and

FIG. **6** is a circuit diagram of another embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

An embodiment of the complete computer keyboard light system of the present invention is shown in FIG. **1**. FIG. **1** shows a home-computer set (including a microprocessor, a monitor, a keyboard, a printer and a mouse) on a simple table surface, the area of which surface is generally less than **3** feet by **2** feet. As shown in FIG. **1**, all keys/knobs/switches for operating the whole computer system are illuminated by three lamps of this invention. Of course, the monitor screen has enough luminosity for itself if it is not of the liquid-crystal type. A preferred embodiment of this invention comprises two components, shown separately in FIGS. **2** and **3**, that function together in a preferred embodiment but may each function independently in respective alternative embodiments.

As shown in FIGS. **1** and **2**, the first component of the preferred embodiment comprises at least one but preferably two lamp units **11,12** mounted to a horizontal planar weighted plate **13** by way of a control panel **14**. The control panel **14** is an elongated box that is approximately the same width as keyboard **2** and is preferably approximately 12" to 19" wide. Control panel **14** is mounted at the back edge of keyboard **2**, closest to the monitor **1** such that flat plate **13** extends from the front side of control panel **14** under keyboard **2**. Lamp units **11,12** are mounted to the back side of control panel **14**, closest to monitor **1**, as described below. During normal operation of the PC, flat plate **13** is placed under keyboard **2** such that control panel **14** and mounted lamp units **11,12** are mounted along the back edge of keyboard **2**. Alternatively, plate **13** may also be secured to the underside of keyboard **2**. Each lamp unit **11,12** comprises a lamp head **15**, containing a bulb covered by a light cover, and an arm **16** to enable the bulb to shine onto keyboard **2** from a distance above keyboard **2**. Thus, the light from the lamp units **11,12** shines downward onto keyboard **2** from the side of keyboard **2** opposite the user.

The lamp units **11,12** are rotatably mounted to the back edge of control panel **14** so that the lamp arms **16** may be angled forward or backward relative to keyboard **2** about a